



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/375,710	08/17/1999	BRIAN M. UNITT	476-1830	5479
23644	7590	06/09/2005	EXAMINER	
BARNES & THORNBURG P.O. BOX 2786 CHICAGO, IL 60690-2786				YAO, KWANG BIN
ART UNIT		PAPER NUMBER		
		2667		

DATE MAILED: 06/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/375,710	UNIT ET AL.
	Examiner	Art Unit
	Kwang B. Yao	2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 08 September 2004 and 24 January 2005.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-6,15-19 and 21-23 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-6,15-19 and 21-23 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-6, 15-19, 21-23 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6, 15-19, 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerszberg et al. (US 6,714,534) in view of Watanabe (US 5,715,250).

Gerszberg et al. discloses a communication system comprising the following features: regarding claim 1, a method of transporting packet voice (Fig. 2, DIGITAL PHONE 121) and data traffic (Fig. 1A, computer 14) over a low bandwidth upstream communication path from a subscriber location (Fig. 1A, CPE 10, CUSTOMER PREMISES 22; Fig. 2, CUSTOMER PREMISES 22), the method comprising performing at the subscriber location (Fig. 1A, CPE 10, CUSTOMER PREMISES 22; Fig. 2, CUSTOMER PREMISES 22) the steps of: generating (column 16, lines 24-27) a first internet protocol IP packet stream carrying the voice (Fig. 2, DIGITAL PHONE 121) traffic; generating (column 16, lines 24-27) a second IP packet stream carrying the data traffic (Fig. 1A, computer 14); regarding claim 2, wherein said upstream

communication path comprises a telephone subscriber loop (Fig. 1A, Central office 34, PSTN 46); regarding claim 3, wherein said subscriber loop carries a asymmetric digital subscriber line ADSL (COLUMN 15, LINES 11-18) service; regarding claim 6, wherein said voice (Fig. 2, DIGITAL PHONE 121) packets are routed within the IP network to one or more gateways providing access to a PSTN; regarding claim 15, A subscriber station (Fig. 1A, CPE 10, CUSTOMER PREMISES 22; Fig. 2, CUSTOMER PREMISES 22) for providing digital communication with an access multiplexer over a subscriber loop, the subscriber station (Fig. 1A, CPE 10, CUSTOMER PREMISES 22; Fig. 2, CUSTOMER PREMISES 22) incorporating means for generating (column 16, lines 24-27) a first IP packet stream comprising digitally encoded voice (Fig. 2, DIGITAL PHONE 121) traffic and a second IP packet stream comprising data traffic (Fig.1A, computer 14); regarding claim 16,a method of transporting packetised delay sensitive and delay insensitive traffic on a low bandwidth upstream communications path from a subscriber location (Fig. 1A, CPE 10, CUSTOMER PREMISES 22; Fig. 2, CUSTOMER PREMISES 22), the method comprising performing at the subscriber location (Fig. 1A, CPE 10, CUSTOMER PREMISES 22; Fig. 2, CUSTOMER PREMISES 22) the following steps: generating (column 16, lines 24-27) a first packet stream carrying the delay sensitive traffic according to a first packet protocol; generating (column 16, lines 24-27) a second packet stream carrying the delay insensitive traffic according to said first protocol; regarding claim 18, wherein said upstream communication path is a subscriber loop carrying a asymmetric digital subscriber line ADSL (COLUMN 15, LINES 11-18) service; regarding claim 19, wherein the first packet stream comprising said delay sensitive traffic comprises digitally encoded voice (Fig. 2, DIGITAL PHONE 121) traffic and said second packet stream comprising said delay insensitive

traffic comprises data traffic (Fig.1A, computer 14); regarding claim 21, a subscriber station (Fig. 1A, CPE 10, CUSTOMER PREMISES 22; Fig. 2, CUSTOMER PREMISES 22) for providing communication with an access multiplexer (Fig. 1A, Fig. 2, ISD 22) over a low bandwidth, upstream communications path, comprises; means for generating (column 16, lines 24-27) a first packet stream carrying the delay sensitive traffic according to a first packet protocol; means for generating (column 16, lines 24-27) a second packet stream carrying the delay insensitive traffic according to said first protocol; regarding claim 23, wherein the upstream communication path comprises a subscriber loop carrying an ADSL (COLUMN 15, LINES 11-18) service. See column 1-34.

Gerszberg et al. does not disclose the following features: regarding claim 1, segmenting said first and second IP packet streams into respective first and second ATM cell streams; and multiplexing said first and second ATM cell streams together for transport over said upstream communication path; regarding claim 4, wherein said first and second cell streams are adaptation layer five (AAL5) cell streams; regarding claim 5, wherein said first and second cell streams are re-assembled into respective voice and data packets for transport over an IP network; regarding claim 15, means for segmenting said first and second IP packet streams into respective first and second ATM cell streams, and multiplexing means for multiplexing said first and second ATM cell streams together for transport to the access multiplexer over said subscriber loop; regarding claim 16, segmenting said first and second packet streams into respective first and second streams in accordance with a second packet protocol; and multiplexing said first and second packet streams formed in accordance with said second packet protocol for transport over the upstream communication path, wherein said second packet protocol has a packet length that is

smaller than that of the first packet protocol; regarding claim 17, wherein the first packet protocol is the Internet Protocol IP and the second protocol is the Asynchronous Transfer Mode ATM Protocol; regarding claim 21, means for segmenting said first and second packet streams into respective first and second streams in accordance with a second packet protocol; and means for multiplexing said first and second packet streams formed in accordance with said second packet protocol for transport over the upstream communication path, wherein said second packet protocol has a packet length that is smaller than that of the first packet protocol; regarding claim 22, wherein the first packet protocol is IP and the second packet protocol is ATM.

Watanabe discloses a communication system comprising the following features: regarding claim 1, segmenting said first and second IP packet streams (Fig. 3, ip4, ip5) into respective first and second ATM cell streams; and multiplexing (Fig. 1, ATM-LAN CONNECTION APPARATUS 1; Fig. 2, AAL5-SAR SECTION 16) said first and second ATM cell streams together for transport over said upstream communication path; regarding claim 4, wherein said first and second cell streams are adaptation layer five AAL5 cell streams (FIG. 6, IP OVER ATM FRAME 31); regarding claim 5, wherein said first and second cell streams are re-assembled (Fig. 1, ATM-LAN CONNECTION APPARATUS 1; Fig. 2, AAL5-SAR SECTION 12) into respective voice and data packets for transport over an IP network; regarding claim 15, means for segmenting said first and second IP packet streams (Fig. 3, ip4, ip5) into respective first and second ATM cell streams, and multiplexing (Fig. 1, ATM-LAN CONNECTION APPARATUS 1; Fig. 2, AAL5-SAR SECTION 16) means for multiplexing (Fig. 1, ATM-LAN CONNECTION APPARATUS 1; Fig. 2, AAL5-SAR SECTION 16) said first and second ATM cell streams together for transport to the access multiplexer over said subscriber loop; regarding

claim 16, segmenting said first and second packet streams (Fig. 3, ip4, ip5) into respective first and second streams in accordance with a second packet protocol (Fig. 6, IP OVER ATM FRAME 31); and multiplexing (Fig. 1, ATM-LAN CONNECTION APPARATUS 1; Fig. 2, AAL5-SAR SECTION 16) said first and second packet streams (Fig. 3, ip4, ip5) formed in accordance with said second packet protocol (Fig. 6, IP OVER ATM FRAME 31) for transport over the upstream communication path, wherein said second packet protocol (Fig. 6, IP OVER ATM FRAME 31) has a packet length that is smaller (Fig. 6) than that of the first packet protocol (Fig. 6, LAN EMULATION FRAME); regarding claim 17, wherein the first packet protocol (Fig. 6, LAN EMULATION FRAME) Is the Internet Protocol IP and the second protocol is the Asynchronous Transfer Mode ATM Protocol; regarding claim 21, means for segmenting said first and second packet streams (Fig. 3, ip4, ip5) Into respective first and second streams in accordance with a second packet protocol (Fig. 6, IP OVER ATM FRAME 31); and means for multiplexing (Fig. 1, ATM-LAN CONNECTION APPARATUS 1; Fig. 2, AAL5-SAR SECTION 16) said first and second packet streams (Fig. 3, ip4, ip5) formed in accordance with said second packet protocol (Fig. 6, IP OVER ATM FRAME 31) for transport over the upstream communication path, wherein said second packet protocol (Fig. 6, IP OVER ATM FRAME 31) has a packet length that is smaller (Fig. 6) than that of the first packet protocol (Fig. 6, LAN EMULATION FRAME); regarding claim 22, wherein the first packet protocol (Fig. 6, LAN EMULATION FRAME) is IP and the second packet protocol (Fig. 6, IP OVER ATM FRAME 31) is ATM. See column 3-6. It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Gerszberg et al., by using the features, as taught by Watanabe, in order to have an efficient communication system by

Art Unit: 2667

providing a small scale ATM-LAN connection apparatus which enables communication between terminals with different standards. See Watanabe, column 1, lines 47-50.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bum (US 6,285,685) discloses a method for supporting PC communication.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kwang B. Yao whose telephone number is 571-272-3182. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KWANG BIN YAO
PRIMARY EXAMINER
Kwang B. Yao
June 3, 2005